

Andrews University

Digital Commons @ Andrews University

Faculty Publications

12-10-2017

Erratum: First search for gravitational waves from known pulsars with advanced LIGO (Astrophysical Journal (2017) 839 (12) DOI: 10.3847/1538-4357/aa677f)

B. P. Abbott

California Institute of Technology

R. Abbott

California Institute of Technology

T. D. Abbott

Louisiana State University

M. R. Abernathy

American University

F. Acernese

Università di Salerno

Follow this and additional works at: <https://digitalcommons.andrews.edu/pubs>



Part of the [Astrophysics and Astronomy Commons](#)

See next page for additional authors

Recommended Citation

Abbott, B. P.; Abbott, R.; Abbott, T. D.; Abernathy, M. R.; Acernese, F.; Ackley, K.; Adams, C.; Adams, T.; Addesso, P.; Adhikari, R. X.; Adya, V. B.; Affeldt, C.; Agathos, M.; Agatsuma, K.; Aggarwal, N.; Aguiar, O. D.; Aiello, L.; Ain, A.; Ajith, P.; Allen, B.; Allocca, A.; Altin, P. A.; Ananyeva, A.; Anderson, S. B.; Anderson, W. G.; Appert, S.; Arai, K.; Araya, M. C.; Areeda, J. S.; Arnaud, N.; Arun, K. G.; and Summerscales, Tiffany Z., "Erratum: First search for gravitational waves from known pulsars with advanced LIGO (Astrophysical Journal (2017) 839 (12) DOI: 10.3847/1538-4357/aa677f)" (2017). *Faculty Publications*. 1608.
<https://digitalcommons.andrews.edu/pubs/1608>

This Article is brought to you for free and open access by Digital Commons @ Andrews University. It has been accepted for inclusion in Faculty Publications by an authorized administrator of Digital Commons @ Andrews University. For more information, please contact repository@andrews.edu.

Authors

B. P. Abbott, R. Abbott, T. D. Abbott, M. R. Abernathy, F. Acernese, K. Ackley, C. Adams, T. Adams, P. Addesso, R. X. Adhikari, V. B. Adya, C. Affeldt, M. Agathos, K. Agatsuma, N. Aggarwal, O. D. Aguiar, L. Aiello, A. Ain, P. Ajith, B. Allen, A. Allocca, P. A. Altin, A. Ananyeva, S. B. Anderson, W. G. Anderson, S. Appert, K. Arai, M. C. Araya, J. S. Areeda, N. Arnaud, K. G. Arun, and Tiffany Z. Summerscales



Erratum: “First Search for Gravitational Waves from Known Pulsars with Advanced LIGO” (2017, *ApJ*, 839, 12)

B. P. Abbott¹, R. Abbott¹, T. D. Abbott², M. R. Abernathy³, F. Acernese^{4,5}, K. Ackley⁶, C. Adams⁷, T. Adams⁸, P. Addresso⁹, R. X. Adhikari¹, V. B. Adya¹⁰, C. Affeldt¹⁰, M. Agathos¹¹, K. Agatsuma¹¹, N. Aggarwal¹², O. D. Aguiar¹³, L. Aiello^{14,15}, A. Ain¹⁶, P. Ajith¹⁷, B. Allen^{10,18,19}, A. Allocca^{20,21}, P. A. Altin²², A. Ananyeva¹, S. B. Anderson¹, W. G. Anderson¹⁸, S. Appert¹, K. Arai¹, M. C. Araya¹, J. S. Areeda²³, N. Arnaud²⁴, K. G. Arun²⁵, S. Ascenzi^{26,15}, G. Ashton¹⁰, M. Ast²⁷, S. M. Aston¹, P. Astone²⁸, P. Aufmuth¹⁹, C. Aulbert¹⁰, A. Avila-Alvarez²³, S. Babak²⁹, P. Bacon³⁰, M. K. M. Bader¹¹, P. T. Baker³¹, F. Baldaccini^{32,33}, G. Ballardin³⁴, S. W. Ballmer³⁵, J. C. Barayoga¹, S. E. Barclay³⁶, B. C. Barish¹, D. Barker³⁷, F. Barone^{4,5}, B. Barr³⁶, L. Barsotti¹², M. Barsuglia³⁰, D. Barta³⁸, J. Bartlett³⁷, I. Bartos³⁹, R. Bassiri⁴⁰, A. Basti^{20,21}, J. C. Batch³⁷, C. Baune¹⁰, V. Bavigadda³⁴, M. Bazzan^{41,42}, C. Beer¹⁰, M. Bejger⁴³, I. Belahcene²⁴, M. Belgin⁴⁴, A. S. Bell³⁶, B. K. Berger¹, G. Bergmann¹⁰, C. P. L. Berry⁴⁵, D. Bersanetti^{46,47}, A. Bertolini¹¹, J. Betzwieser⁷, S. Bhagwat³⁵, R. Bhandare⁴⁸, I. A. Bilenko⁴⁹, G. Billingsley¹, C. R. Billman⁶, J. Birch⁷, R. Birney⁵⁰, O. Birnholtz¹⁰, S. Biscans^{12,1}, A. Bisht¹⁹, M. Bitossi³⁴, C. Biwer³⁵, M. A. Bizouard²⁴, J. K. Blackburn¹, J. Blackman⁵¹, C. D. Blair⁵², D. G. Blair⁵², R. M. Blair³⁷, S. Bloemen⁵³, O. Bock¹⁰, M. Boer⁵⁴, G. Bogaert⁵⁴, A. Bohe²⁹, F. Bondu⁵⁵, R. Bonnand⁸, B. A. Boom¹¹, R. Bork¹, V. Boschi^{20,21}, S. Bose^{16,56}, Y. Bouffanais³⁰, A. Bozzi³⁴, C. Bradaschia²¹, P. R. Brady¹⁸, V. B. Braginsky^{49,153}, M. Branchesi^{57,58}, J. E. Brau⁵⁹, T. Briant⁶⁰, A. Brillet⁵⁴, M. Brinkmann¹⁰, V. Brisson²⁴, P. Brockill¹⁸, J. E. Broida⁶¹, A. F. Brooks¹, D. A. Brown³⁵, D. D. Brown⁴⁵, N. M. Brown¹², S. Brunetti¹, C. C. Buchanan², A. Buikema¹², T. Bulik⁶², H. J. Bulten^{11,63}, A. Buonanno^{29,64}, D. Buskulic⁸, C. Buy³⁰, R. L. Byer⁴⁰, M. Cabero¹⁰, L. Cadonati⁴⁴, G. Cagnoli^{65,66}, C. Cahillane¹, J. Calderón Bustillo⁴⁴, T. A. Callister¹, E. Calloni^{5,67}, J. B. Camp⁶⁸, M. Canepa^{46,47}, K. C. Cannon⁶⁹, H. Cao⁷⁰, J. Cao⁷¹, C. D. Capano¹⁰, E. Capocasa³⁰, F. Carbognani³⁴, S. Caride⁷², J. Casanueva Diaz²⁴, C. Casentini^{26,15}, S. Caudill¹⁸, M. Cavaglia⁷³, F. Cavalier²⁴, R. Cavalieri³⁴, G. Cella²¹, C. B. Cepeda¹, L. Cerboni Baiardi^{57,58}, G. Cerretani^{20,21}, E. Cesarini^{15,26}, S. J. Chamberlin⁷⁴, M. Chan³⁶, S. Chao⁷⁵, P. Charlton⁷⁶, E. Chassande-Mottin³⁰, B. D. Cheeseboro³¹, H. Y. Chen⁷⁷, Y. Chen⁵¹, H.-P. Cheng⁶, A. Chincarini⁴⁷, A. Chiummo³⁴, T. Chmiel⁷⁸, H. S. Cho⁷⁹, M. Cho⁶⁴, J. H. Chow²², N. Christensen⁶¹, Q. Chu⁵², A. J. K. Chua⁸⁰, S. Chua⁶⁰, S. Chung⁵², G. Ciani⁶, F. Clara³⁷, J. A. Clark⁴⁴, F. Cleva⁵⁴, C. Cocchieri⁷³, E. Coccia^{14,15}, P.-F. Cohadon⁶⁰, A. Colla^{28,81}, C. G. Collette⁸², L. Cominsky⁸³, M. Constanancio Jr.¹³, L. Conti⁴², S. J. Cooper⁴⁵, T. R. Corbitt², N. Cornish⁸⁴, A. Corsi⁷², S. Cortese³⁴, C. A. Costa¹³, M. W. Coughlin⁶¹, S. B. Coughlin⁸⁵, J.-P. Coulon⁵⁴, S. T. Countryman³⁹, P. Couvares¹, P. B. Covas⁸⁶, E. E. Cowan⁴⁴, D. M. Coward⁵², M. J. Cowart⁷, D. C. Coyne¹, R. Coyne⁷², J. D. Creighton¹⁸, T. D. Creighton⁸⁷, J. Cripe², S. G. Crowder⁸⁸, T. J. Cullen²³, A. Cumming³⁶, L. Cunningham³⁶, E. Cuoco³⁴, T. Dal Canton⁶⁸, S. L. Danilishin³⁶, S. D’Antonio¹⁵, K. Danzmann^{10,19}, A. Dasgupta⁸⁹, C. F. Da Silva Costa⁶, V. Dattilo³⁴, I. Dave⁴⁸, M. Davies²⁴, G. S. Davies³⁶, D. Davis³⁵, E. J. Daw⁹⁰, B. Day⁴⁴, R. Day³⁴, S. De³⁵, D. DeBra⁴⁰, G. Debreczeni³⁸, J. Degallaix⁶⁵, M. De Laurentis^{5,67}, S. Deléglise⁶⁰, W. Del Pozzo⁴⁵, T. Denker¹⁰, T. Dent¹⁰, V. Dergachev²⁹, R. De Rosa^{5,67}, R. T. DeRosa⁷, R. DeSalvo⁹¹, J. Devenson⁵⁰, R. C. Devine³¹, S. Dhurandhar¹⁶, M. C. Díaz⁸⁷, L. Di Fiore⁵, M. Di Giovanni^{92,93}, T. Di Girolamo^{5,67}, A. Di Lieto^{20,21}, S. Di Pace^{28,81}, I. Di Palma^{28,29,81}, A. Di Virgilio²¹, Z. Doctor⁷⁷, V. Dolique⁶⁵, F. Donovan¹², K. L. Dooley⁷³, S. Doravari¹⁰, I. Dorrington⁹⁴, R. Douglas³⁶, M. Dovale Álvarez⁴⁵, T. P. Downes¹⁸, M. Drago¹⁰, R. W. P. Drever¹, J. C. Driggers³⁷, Z. Du⁷¹, M. Ducrot⁸, S. E. Dwyer³⁷, T. B. Edo⁹⁰, M. C. Edwards⁶¹, A. Effler⁷, H.-B. Eggenstein¹⁰, P. Ehrens¹, J. Eichholz¹, S. S. Eikenberry⁶, R. A. Eisenstein¹², R. C. Essick¹², Z. Etienne³¹, T. Etzel¹, M. Evans¹², T. M. Evans⁷, R. Everett⁷⁴, M. Factourovich³⁹, V. Fafone^{15,14,26}, H. Fair³⁵, S. Fairhurst⁹⁴, X. Fan⁷¹, S. Farinon⁴⁷, B. Farr⁷⁷, W. M. Farr⁴⁵, E. J. Fauchon-Jones⁹⁴, M. Favata⁹⁵, M. Fays⁹⁴, H. Fehrmann¹⁰, M. M. Fejer⁴⁰, A. Fernández Galiana¹², I. Ferrante^{20,21}, E. C. Ferreira¹³, F. Ferrini³⁴, F. Fidecaro^{20,21}, I. Fiori³⁴, D. Fiorucci³⁰, R. P. Fisher³⁵, R. Flaminio^{65,96}, M. Fletcher³⁶, H. Fong⁹⁷, S. S. Forsyth⁴⁴, J.-D. Fournier⁵⁴, S. Frasca^{28,81}, F. Frasconi²¹, Z. Frei⁹⁸, A. Freise⁴⁵, R. Frey⁵⁹, V. Frey²⁴, E. M. Fries¹, P. Fritschel¹², V. V. Frolov⁷, P. Fulda^{6,68}, M. Fyffe⁷, H. Gabbard¹⁰, B. U. Gadre¹⁶, S. M. Gaebel⁴⁵, J. R. Gair⁹⁹, L. Gammaitoni³², S. G. Gaonkar¹⁶, F. Garufi^{5,67}, G. Gaur¹⁰⁰, V. Gayathri¹⁰¹, N. Gehrels⁶⁸, G. Gemme⁴⁷, E. Genin³⁴, A. Gennai²¹, J. George⁴⁸, L. Gergely¹⁰², V. Germain⁸, S. Ghonge¹⁷, Abhirup Ghosh¹⁷, Archisman Ghosh^{11,17}, S. Ghosh^{11,53}, J. A. Giaime^{2,7}, K. D. Giardina⁷, A. Giazotto²¹, K. Gill¹⁰³, A. Glaefke³⁶, E. Goetz¹⁰, R. Goetz⁶, L. Gondan⁹⁸, G. González², J. M. Gonzalez Castro^{20,21}, A. Gopakumar¹⁰⁴, M. L. Gorodetsky⁴⁹, S. E. Gossan¹, M. Gosselin³⁴, R. Gouaty⁸, A. Grado^{105,5}, C. Graef³⁶, M. Granata⁶⁵, A. Grant³⁶, S. Gras¹², C. Gray³⁷, G. Greco^{57,58}, A. C. Green⁴⁵, P. Groot⁵³, H. Grote¹⁰, S. Grunewald²⁹, G. M. Guidi^{57,58}, X. Guo⁷¹, A. Gupta¹⁶, M. K. Gupta⁸⁹, K. E. Gushwa¹, E. K. Gustafson¹, R. Gustafson¹⁰⁶, J. J. Hacker²³, B. R. Hall⁵⁶, E. D. Hall¹, G. Hammond³⁶, M. Haney¹⁰⁴, M. M. Hanke¹⁰, J. Hanks³⁷, C. Hanna⁷⁴, J. Hanson⁷, T. Hardwick², J. Harms^{57,58}, G. M. Harry³, I. W. Harry²⁹, M. J. Hart³⁶, M. T. Hartman⁶, C.-J. Haster^{45,97}, K. Haughian³⁶, J. Healy¹⁰⁷, A. Heidmann⁶⁰, M. C. Heintze⁷, H. Heitmann⁵⁴, P. Hello²⁴, G. Hemming³⁴, M. Hendry³⁶, I. S. Heng³⁶, J. Hennig³⁶, J. Henry¹⁰⁷, A. W. Heptonstall¹, M. Heurs^{10,19}, S. Hild³⁶, D. Hoak³⁴, D. Hofman⁶⁵, K. Holt⁷, D. E. Holz⁷⁷, P. Hopkins⁹⁴, J. Hough³⁶, E. A. Houston³⁶, E. J. Howell⁵², Y. M. Hu¹⁰, E. A. Huerta¹⁰⁸, D. Huet²⁴, B. Hughey¹⁰³, S. Husa⁸⁶, S. H. Huttner³⁶, T. Huynh-Dinh⁷, N. Indik¹⁰, D. R. Ingram³⁷, R. Inta⁷², H. N. Isa³⁶, J.-M. Isac⁶⁰, M. Isi¹, T. Isogai¹², B. R. Iyer¹⁷, K. Izumi³⁷, T. Jacqmin⁶⁰, K. Jani⁴⁴, P. Jaranowski¹⁰⁹, S. Jawahar¹¹⁰, F. Jiménez-Forteza⁸⁶, W. W. Johnson², D. I. Jones¹¹¹, R. Jones³⁶, R. J. G. Jonker¹¹, L. Ju⁵², J. Junker¹⁰, C. V. Kalaghatgi⁹⁴, V. Kalogera⁸⁵, S. Kandhasamy⁷³, G. Kang⁷⁹, J. B. Kanner¹, S. Karki⁵⁹, K. S. Karvinen¹⁰, M. Kasprzak², E. Katsavounidis¹²

W. Katzman⁷, S. Kaufer¹⁹, T. Kaur⁵², K. Kawabe³⁷, F. Kéfélian⁵⁴, D. Keitel⁸⁶, D. B. Kelley³⁵, R. Kennedy⁹⁰, J. S. Key¹¹², F. Y. Khalili⁴⁹, I. Khan¹⁴, S. Khan⁹⁴, Z. Khan⁸⁹, E. A. Khazanov¹¹³, N. Kijbunchoo³⁷, Chunglee Kim¹¹⁴, J. C. Kim¹¹⁵, Whansun Kim¹¹⁶, W. Kim⁷⁰, Y.-M. Kim^{114,117}, S. J. Kimbrell⁴⁴, E. J. King⁷⁰, P. J. King³⁷, R. Kirchhoff¹⁰, J. S. Kissel³⁷, B. Klein⁸⁵, L. Kleybolte²⁷, S. Klimenko⁶, P. Koch¹⁰, S. M. Koehlenbeck¹⁰, S. Koley¹¹, V. Kondrashov¹, A. Kontos¹², M. Korobko²⁷, W. Z. Korth¹, I. Kowalska⁶², D. B. Kozak¹, C. Krämer¹⁰, V. Kringel¹⁰, B. Krishnan¹⁰, A. Królak^{118,119}, G. Kuehn¹⁰, P. Kumar⁹⁷, R. Kumar⁸⁹, L. Kuo⁷⁵, A. Kutynia¹¹⁸, B. D. Lackey^{29,35}, M. Landry³⁷, R. N. Lang¹⁸, J. Lange¹⁰⁷, B. Lantz⁴⁰, R. K. Lanza¹², A. Lartaux-Vollard²⁴, P. D. Lasky¹²⁰, M. Laxen⁷, A. Lazzarini¹, C. Lazzaro⁴², P. Leaci^{28,81}, S. Leavey³⁶, E. O. Lebigot³⁰, C. H. Lee¹¹⁷, H. K. Lee¹²¹, H. M. Lee¹¹⁴, K. Lee³⁶, J. Lehmann¹⁰, A. Lenon³¹, M. Leonardi^{92,93}, J. R. Leong¹⁰, N. Leroy²⁴, N. Letendre⁸, Y. Levin¹²⁰, T. G. F. Li¹²², A. Libson¹², T. B. Littenberg¹²³, J. Liu⁵², N. A. Lockerbie¹¹⁰, A. L. Lombardi⁴⁴, L. T. London⁹⁴, J. E. Lord³⁵, M. Lorenzini^{14,15}, V. Lorette¹²⁴, M. Lormand⁷, G. Losurdo²¹, J. D. Lough^{10,19}, C. O. Lousto¹⁰⁷, G. Lovelace²³, H. Lück^{19,10}, A. P. Lundgren¹⁰, R. Lynch¹², Y. Ma⁵¹, S. Macfoy⁵⁰, B. Machenschalk¹⁰, M. MacInnis¹², D. M. Macleod², F. Magaña-Sandoval³⁵, E. Majorana²⁸, I. Maksimovic¹²⁴, V. Malvezzi^{15,26}, N. Man⁵⁴, V. Mandic¹²⁵, V. Mangano³⁶, G. L. Mansell²², M. Manske¹⁸, M. Mantovani³⁴, F. Marchesoni^{33,126}, F. Marion⁸, S. Márka³⁹, Z. Márka³⁹, A. S. Markosyan⁴⁰, E. Maros¹, F. Martelli^{57,58}, L. Martellini⁵⁴, I. W. Martin³⁶, D. V. Martynov¹², K. Mason¹², A. Masserot⁸, T. J. Massinger¹, M. Masso-Reid³⁶, S. Mastrogiovanni^{28,81}, F. Matichard^{1,12}, L. Matone³⁹, N. Mavalvala¹², N. Mazumder⁵⁶, R. McCarthy³⁷, D. E. McClelland²², S. McCormick⁷, C. McGrath¹⁸, S. C. McGuire¹²⁷, G. McIntyre¹, J. McIver¹, D. J. McManus²², T. McRae²², S. T. McWilliams³¹, D. Meacher^{54,74}, G. D. Meadors^{10,29}, J. Meidam¹¹, A. Melatos¹²⁸, G. Mendell³⁷, D. Mendoza-Gandara¹⁰, R. A. Mercer¹⁸, E. L. Merilh³⁷, M. Merzougui⁵⁴, S. Meshkov¹, C. Messenger³⁶, C. Messick⁷⁴, R. Metzdrorff⁶⁰, P. M. Meyers¹²⁵, F. Mezzani^{28,81}, H. Miao⁴⁵, C. Michel⁶⁵, H. Middleton⁴⁵, E. E. Mikhailov¹²⁹, L. Milano^{5,67}, A. L. Miller^{6,28,81}, A. Miller⁸⁵, B. B. Miller⁸⁵, J. Miller¹², M. Millhouse⁸⁴, Y. Minenkov¹⁵, J. Ming²⁹, S. Mirshekari¹³⁰, C. Mishra¹⁷, S. Mitra¹⁶, V. P. Mitrofanov⁴⁹, G. Mitselmakher⁶, R. Mittleman¹², A. Moggi²¹, M. Mohan³⁴, S. R. P. Mohapatra¹², M. Montani^{57,58}, B. C. Moore⁹⁵, C. J. Moore⁸⁰, D. Moraru³⁷, G. Moreno³⁷, S. R. Morris⁸⁷, B. Mours⁸, C. M. Mow-Lowry⁴⁵, G. Mueller⁶, A. W. Muir⁹⁴, Arunava Mukherjee¹⁷, D. Mukherjee¹⁸, S. Mukherjee⁸⁷, N. Mukund¹⁶, A. Mullavey⁷, J. Munch⁷⁰, E. A. M. Muniz²³, P. G. Murray³⁶, A. Mytidis⁶, K. Napier⁴⁴, I. Nardecchia^{15,26}, L. Naticchioni^{28,81}, G. Nelemans^{11,53}, T. J. N. Nelson⁷, M. Neri^{46,47}, M. Nery¹⁰, A. Neunzert¹⁰⁶, J. M. Newport³, G. Newton³⁶, T. T. Nguyen²², A. B. Nielsen¹⁰, S. Nissanke^{53,11}, A. Nitz¹⁰, A. Noack¹⁰, F. Nocera³⁴, D. Nolting⁷, M. E. N. Normandin⁸⁷, L. K. Nuttall³⁵, J. Oberling³⁷, E. Ochsner¹⁸, E. Oelker¹², G. H. Ogin¹³¹, J. J. Oh¹¹⁶, S. H. Oh¹¹⁶, F. Ohme^{10,94}, M. Oliver⁸⁶, P. Oppermann¹⁰, Richard J. Oram⁷, B. O'Reilly⁷, R. O'Shaughnessy¹⁰⁷, D. J. Ottaway⁷⁰, H. Overmier⁷, B. J. Owen⁷², A. E. Pace⁷⁴, J. Page¹²³, A. Pai¹⁰¹, S. A. Pai⁴⁸, J. R. Palamos⁵⁹, O. Palashov¹¹³, C. Palomba²⁸, A. Pal-Singh²⁷, H. Pan⁷⁵, C. Pankow⁸⁵, F. Pannarale⁹⁴, B. C. Pant⁴⁸, F. Paoletti^{21,34}, A. Paoli³⁴, M. A. Papa^{10,18,29}, H. R. Paris⁴⁰, W. Parker⁷, D. Pascucci³⁶, A. Pasqualetti³⁴, R. Passaquietti^{20,21}, D. Passuello²¹, B. Patricelli^{20,21}, B. L. Pearlstone³⁶, M. Pedraza¹, R. Pedurand^{65,132}, L. Pekowsky³⁵, A. Pele⁷, S. Penn¹³³, C. J. Perez³⁷, A. Perreca¹, L. M. Perri⁸⁵, H. P. Pfeiffer⁹⁷, M. Phelps³⁶, O. J. Piccinni^{28,81}, M. Pichot⁵⁴, F. Piergiovanni^{57,58}, V. Pierro⁹, G. Pillant³⁴, L. Pinard⁶⁵, I. M. Pinto⁹, M. Pitkin³⁶, M. Poe¹⁸, R. Poggiani^{20,21}, P. Popolizio³⁴, A. Post¹⁰, J. Powell³⁶, J. Prasad¹⁶, J. W. W. Pratt¹⁰³, V. Predoi⁹⁴, T. Prestegard^{125,18}, M. Prijatelj^{10,34}, M. Principe⁹, S. Privitera²⁹, R. Prix¹⁰, G. A. Prodi^{92,93}, L. G. Prokhorov⁴⁹, O. Puncken¹⁰, M. Punturo³³, P. Puppo²⁸, M. Pürer²⁹, H. Qi¹⁸, J. Qin⁵², S. Qiu¹²⁰, V. Quetschke⁸⁷, E. A. Quintero¹, R. Quitow-James⁵⁹, F. J. Raab³⁷, D. S. Rabeling²², H. Radkins³⁷, P. Raffai⁹⁸, S. Raja⁴⁸, C. Rajan⁴⁸, M. Rakhmanov⁸⁷, P. Rapagnani^{28,81}, V. Raymond²⁹, M. Razzano^{20,21}, V. Re²⁶, J. Read²³, T. Regimbau⁵⁴, L. Rei⁴⁷, S. Reid⁵⁰, D. H. Reitze^{1,6}, H. Rew¹²⁹, S. D. Reyes³⁵, E. Rhoades¹⁰³, F. Ricci^{28,81}, K. Riles¹⁰⁶, M. Rizzo¹⁰⁷, N. A. Robertson^{1,36}, R. Robie³⁶, F. Robinet²⁴, A. Rocchi¹⁵, L. Rolland⁸, J. G. Rollins¹, V. J. Roma⁵⁹, R. Romano^{4,5}, J. H. Romie⁷, D. Rosińska^{134,43}, S. Rowan³⁶, A. Rüdiger¹⁰, P. Ruggi³⁴, K. Ryan³⁷, S. Sachdev¹, T. Sadecki³⁷, L. Sadeghian¹⁸, M. Sakellariadou¹³⁵, L. Salconi³⁴, M. Saleem¹⁰¹, F. Salemi¹⁰, A. Samajdar¹³⁶, L. Sammut¹²⁰, L. M. Sampson⁸⁵, E. J. Sanchez¹, V. Sandberg³⁷, J. R. Sanders³⁵, B. Sassolas⁶⁵, B. S. Sathyaprakash^{74,94}, P. R. Saulson³⁵, O. Sauter¹⁰⁶, R. L. Savage³⁷, A. Sawadsky¹⁹, P. Schale⁵⁹, J. Scheuer⁸⁵, E. Schmidt¹⁰³, J. Schmidt¹⁰, P. Schmidt¹⁵¹, R. Schnabel²⁷, R. M. S. Schofield⁵⁹, A. Schönbeck²⁷, E. Schreiber¹⁰, D. Schuette^{10,19}, B. F. Schutz^{29,94}, S. G. Schwalbe¹⁰³, J. Scott³⁶, S. M. Scott²², D. Sellers⁷, A. S. Sengupta¹³⁷, D. Sentenac³⁴, V. Sequino^{15,26}, A. Sergeev¹¹³, Y. Setyawati^{11,53}, D. A. Shaddock²², T. J. Shaffer³⁷, M. S. Shahriar⁸⁵, B. Shapiro⁴⁰, P. Shawhan⁶⁴, A. Sheperd¹⁸, D. H. Shoemaker¹², D. M. Shoemaker⁴⁴, K. Siellez⁴⁴, X. Siemens¹⁸, M. Sieniawska⁴³, D. Sigg³⁷, A. D. Silva¹³, A. Singer¹, L. P. Singer⁶⁸, A. Singh^{10,19,29}, R. Singh², A. Singhal¹⁴, A. M. Sintes⁸⁶, B. J. J. Slagmolen²², B. Smith⁷, J. R. Smith²³, R. J. E. Smith¹, E. J. Son¹¹⁶, B. Sorazu³⁶, F. Sorrentino⁴⁷, T. Souradeep¹⁶, A. P. Spencer³⁶, A. K. Srivastava⁸⁹, A. Staley³⁹, M. Steinke¹⁰, J. Steinlechner³⁶, S. Steinlechner^{27,36}, D. Steinmeyer^{10,19}, B. C. Stephens¹⁸, S. P. Stevenson⁴⁵, R. Stone⁸⁷, K. A. Strain³⁶, N. Straniero⁶⁵, G. Stratta^{57,58}, S. E. Strigin⁴⁹, R. Sturani¹³⁰, A. L. Stuver⁷, T. Z. Summerscales¹³⁸, L. Sun¹²⁸, S. Sunil⁸⁹, P. J. Sutton⁹⁴, B. L. Swinkels³⁴, M. J. Szczepańczyk¹⁰³, M. Tacca³⁰, D. Talukder⁵⁹, D. B. Tanner⁶, M. Tápai¹⁰², A. Taracchini²⁹, R. Taylor¹, T. Theeg¹⁰, E. G. Thomas⁴⁵, M. Thomas⁷, P. Thomas³⁷, K. A. Thorne⁷, E. Thrane¹²⁰, T. Tippens⁴⁴, S. Tiwari^{14,93}, V. Tiwari⁹⁴, K. V. Tokmakov¹¹⁰, K. Toland³⁶, C. Tomlinson⁹⁰, M. Tonelli^{20,21}, Z. Tornasi³⁶, C. I. Torrie¹, D. Töyrä⁴⁵, F. Travasso^{32,33}, G. Traylor⁷, D. Trifiro⁷³, J. Trinastic⁶, M. C. Tringali^{92,93}, L. Trozzo^{21,139}, M. Tse¹², R. Tso¹, M. Turconi⁵⁴, D. Tuyenbayev⁸⁷, D. Ugolini¹⁴⁰, C. S. Unnikrishnan¹⁰⁴, A. L. Urban¹, S. A. Usman⁹⁴, H. Vahlbruch¹⁹, G. Vajente¹, G. Valdes⁸⁷, N. van Bakel¹¹, M. van Beuzekom¹¹, J. F. J. van den Brand^{11,63}, C. Van Den Broeck¹¹, D. C. Vander-Hyde³⁵, L. van der Schaaf¹¹, J. V. van Heijningen¹¹, A. A. van Veggel³⁶, M. Vardaro^{41,42}, V. Varma⁵¹, S. Vass¹, M. Vasúth³⁸, A. Vecchio⁴⁵, G. Vedovato⁴², J. Veitch⁴⁵, P. J. Veitch⁷⁰

K. Venkateswara¹⁴¹, G. Venugopalan¹, D. Verkindt⁸, F. Vetrano^{57,58}, A. Vicere^{57,58}, A. D. Viets¹⁸, S. Vinciguerra⁴⁵, D. J. Vine⁵⁰, J.-Y. Vinet⁵⁴, S. Vitale¹², T. Vo³⁵, H. Vocca^{32,33}, C. Vorvick³⁷, D. V. Voss⁶, W. D. Voudsen⁴⁵, S. P. Vyatchanin⁴⁹, A. R. Wade¹, L. E. Wade⁷⁸, M. Wade⁷⁸, M. Walker², L. Wallace¹, S. Walsh^{29,10}, G. Wang^{14,58}, H. Wang⁴⁵, M. Wang⁴⁵, Y. Wang⁵², R. L. Ward²², J. Warner³⁷, M. Was⁸, J. Watchi⁸², B. Weaver³⁷, L.-W. Wei⁵⁴, M. Weinert¹⁰, A. J. Weinstein¹, R. Weiss¹², L. Wen⁵², P. Weßels¹⁰, T. Westphal¹⁰, K. Wette¹⁰, J. T. Whelan¹⁰⁷, B. F. Whiting⁶, C. Whittle¹²⁰, D. Williams³⁶, R. D. Williams¹, A. R. Williamson⁹⁴, J. L. Willis¹⁴², B. Willke^{19,10}, M. H. Wimmer^{10,19}, W. Winkler¹⁰, C. C. Wipf¹, H. Wittel^{10,19}, G. Woan³⁶, J. Woehler¹⁰, J. Worden³⁷, J. L. Wright³⁶, D. S. Wu¹⁰, G. Wu⁷, W. Yam¹², H. Yamamoto¹, C. C. Yancey⁶⁴, M. J. Yap²², Hang Yu¹², Haocun Yu¹², M. Yvert⁸, A. Zadrożny¹¹⁸, L. Zangrando⁴², M. Zanolin¹⁰³, J.-P. Zendri⁴², M. Zevin⁸⁵, L. Zhang¹, M. Zhang¹²⁹, T. Zhang³⁶, Y. Zhang¹⁰⁷, C. Zhao⁵², M. Zhou⁸⁵, Z. Zhou⁸⁵, S. J. Zhu^{10,29}, X. J. Zhu⁵², M. E. Zucker^{1,12}, J. Zweizig¹

(LIGO Scientific Collaboration and Virgo Collaboration),

S. Buchner^{143,144}, I. Cognard^{145,146}, A. Corongiu¹⁴⁷, P. C. C. Freire¹⁴⁸, L. Guillemot^{145,146}, G. B. Hobbs¹⁴⁹, M. Kerr¹⁴⁹, A. G. Lyne¹⁵⁰, A. Possenti¹⁴⁷, A. Ridolfi¹⁴⁸, R. M. Shannon^{151,152}, B. W. Stappers¹⁵⁰, and P. Weltevrede¹⁵⁰

¹ LIGO, California Institute of Technology, Pasadena, CA 91125, USA

² Louisiana State University, Baton Rouge, LA 70803, USA

³ American University, Washington, DC 20016, USA

⁴ Università di Salerno, Fisciano, I-84084 Salerno, Italy

⁵ INFN, Sezione di Napoli, Complesso Universitario di Monte S. Angelo, I-80126 Napoli, Italy

⁶ University of Florida, Gainesville, FL 32611, USA

⁷ LIGO Livingston Observatory, Livingston, LA 70754, USA

⁸ Laboratoire d'Annecy-le-Vieux de Physique des Particules (LAPP), Université Savoie Mont Blanc, CNRS/IN2P3, F-74941 Annecy-le-Vieux, France

⁹ University of Sannio at Benevento, I-82100 Benevento, Italy and INFN, Sezione di Napoli, I-80100 Napoli, Italy

¹⁰ Albert-Einstein-Institut, Max-Planck-Institut für Gravitationsphysik, D-30167 Hannover, Germany

¹¹ Nikhef, Science Park, 1098 XG Amsterdam, The Netherlands

¹² LIGO, Massachusetts Institute of Technology, Cambridge, MA 02139, USA

¹³ Instituto Nacional de Pesquisas Espaciais, 12227-010 São José dos Campos, São Paulo, Brazil

¹⁴ INFN, Gran Sasso Science Institute, I-67100 L'Aquila, Italy

¹⁵ INFN, Sezione di Roma Tor Vergata, I-00133 Roma, Italy

¹⁶ Inter-University Centre for Astronomy and Astrophysics, Pune 411007, India

¹⁷ International Centre for Theoretical Sciences, Tata Institute of Fundamental Research, Bengaluru 560089, India

¹⁸ University of Wisconsin–Milwaukee, Milwaukee, WI 53201, USA

¹⁹ Leibniz Universität Hannover, D-30167 Hannover, Germany

²⁰ Università di Pisa, I-56127 Pisa, Italy

²¹ INFN, Sezione di Pisa, I-56127 Pisa, Italy

²² Australian National University, Canberra, Australian Capital Territory 0200, Australia

²³ California State University Fullerton, Fullerton, CA 92831, USA

²⁴ LAL, Univ. Paris-Sud, CNRS/IN2P3, Université Paris-Saclay, F-91898 Orsay, France

²⁵ Chennai Mathematical Institute, Chennai 603103, India

²⁶ Università di Roma Tor Vergata, I-00133 Roma, Italy

²⁷ Universität Hamburg, D-22761 Hamburg, Germany

²⁸ INFN, Sezione di Roma, I-00185 Roma, Italy

²⁹ Albert-Einstein-Institut, Max-Planck-Institut für Gravitationsphysik, D-14476 Potsdam-Golm, Germany

³⁰ APC, AstroParticule et Cosmologie, Université Paris Diderot, CNRS/IN2P3, CEA/Irfu, Observatoire de Paris,

Sorbonne Paris Cité, F-75205 Paris Cedex 13, France

³¹ West Virginia University, Morgantown, WV 26506, USA

³² Università di Perugia, I-06123 Perugia, Italy

³³ INFN, Sezione di Perugia, I-06123 Perugia, Italy

³⁴ European Gravitational Observatory (EGO), I-56021 Cascina, Pisa, Italy

³⁵ Syracuse University, Syracuse, NY 13244, USA

³⁶ SUPA, University of Glasgow, Glasgow G12 8QQ, UK

³⁷ LIGO Hanford Observatory, Richland, WA 99352, USA

³⁸ Wigner RCP, RMKI, H-1121 Budapest, Konkoly Thege Miklós út 29-33, Hungary

³⁹ Columbia University, New York, NY 10027, USA

⁴⁰ Stanford University, Stanford, CA 94305, USA

⁴¹ Università di Padova, Dipartimento di Fisica e Astronomia, I-35131 Padova, Italy

⁴² INFN, Sezione di Padova, I-35131 Padova, Italy

⁴³ Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences, 00-716, Warsaw, Poland

⁴⁴ Center for Relativistic Astrophysics and School of Physics, Georgia Institute of Technology, Atlanta, GA 30332, USA

⁴⁵ University of Birmingham, Birmingham B15 2TT, UK

⁴⁶ Università degli Studi di Genova, I-16146 Genova, Italy

⁴⁷ INFN, Sezione di Genova, I-16146 Genova, Italy

⁴⁸ RRCAT, Indore MP 452013, India

⁴⁹ Faculty of Physics, Lomonosov Moscow State University, Moscow 119991, Russia

⁵⁰ SUPA, University of the West of Scotland, Paisley PA1 2BE, UK

⁵¹ Caltech CaRT, Pasadena, CA 91125, USA

⁵² University of Western Australia, Crawley, Western Australia 6009, Australia

⁵³ Department of Astrophysics/IMAPP, Radboud University Nijmegen, P.O. Box 9010, 6500 GL Nijmegen, The Netherlands

⁵⁴ Artemis, Université Côte d'Azur, CNRS, Observatoire Côte d'Azur, CS 34229, F-06304 Nice Cedex 4, France

⁵⁵ Institut de Physique de Rennes, CNRS, Université de Rennes 1, F-35042 Rennes, France

⁵⁶ Washington State University, Pullman, WA 99164, USA

⁵⁷ Università degli Studi di Urbino "Carlo Bo", I-61029 Urbino, Italy

⁵⁸ INFN, Sezione di Firenze, I-50019 Sesto Fiorentino, Firenze, Italy

⁵⁹ University of Oregon, Eugene, OR 97403, USA

⁶⁰ Laboratoire Kastler Brossel, UPMC-Sorbonne Universités, CNRS, ENS-PSL Research University, Collège de France, F-75005 Paris, France

- ⁶¹ Carleton College, Northfield, MN 55057, USA
- ⁶² Astronomical Observatory Warsaw University, 00-478 Warsaw, Poland
- ⁶³ VU University Amsterdam, 1081 HV Amsterdam, The Netherlands
- ⁶⁴ University of Maryland, College Park, MD 20742, USA
- ⁶⁵ Laboratoire des Matériaux Avancés (LMA), CNRS/IN2P3, F-69622 Villeurbanne, France
- ⁶⁶ Université Claude Bernard Lyon 1, F-69622 Villeurbanne, France
- ⁶⁷ Università di Napoli “Federico II”, Complesso Universitario di Monte S. Angelo, I-80126 Napoli, Italy
- ⁶⁸ NASA/Goddard Space Flight Center, Greenbelt, MD 20771, USA
- ⁶⁹ RESCEU, University of Tokyo, Tokyo, 113-0033, Japan
- ⁷⁰ University of Adelaide, Adelaide, South Australia 5005, Australia
- ⁷¹ Tsinghua University, Beijing 100084, China
- ⁷² Texas Tech University, Lubbock, TX 79409, USA
- ⁷³ The University of Mississippi, University, MS 38677, USA
- ⁷⁴ The Pennsylvania State University, University Park, PA 16802, USA
- ⁷⁵ National Tsing Hua University, Hsinchu City, 30013 Taiwan, Republic of China
- ⁷⁶ Charles Sturt University, Wagga Wagga, New South Wales 2678, Australia
- ⁷⁷ University of Chicago, Chicago, IL 60637, USA
- ⁷⁸ Kenyon College, Gambier, OH 43022, USA
- ⁷⁹ Korea Institute of Science and Technology Information, Daejeon 305-806, Korea
- ⁸⁰ University of Cambridge, Cambridge CB2 1TN, UK
- ⁸¹ Università di Roma “La Sapienza”, I-00185 Roma, Italy
- ⁸² University of Brussels, Brussels 1050, Belgium
- ⁸³ Sonoma State University, Rohnert Park, CA 94928, USA
- ⁸⁴ Montana State University, Bozeman, MT 59717, USA
- ⁸⁵ Center for Interdisciplinary Exploration & Research in Astrophysics (CIERA), Northwestern University, Evanston, IL 60208, USA
- ⁸⁶ Universitat de les Illes Balears, IAC3—IEEC, E-07122 Palma de Mallorca, Spain
- ⁸⁷ The University of Texas Rio Grande Valley, Brownsville, TX 78520, USA
- ⁸⁸ Bellevue College, Bellevue, WA 98007, USA
- ⁸⁹ Institute for Plasma Research, Bhat, Gandhinagar 382428, India
- ⁹⁰ The University of Sheffield, Sheffield S10 2TN, UK
- ⁹¹ California State University, Los Angeles, 5154 State University Drive, Los Angeles, CA 90032, USA
- ⁹² Università di Trento, Dipartimento di Fisica, I-38123 Povo, Trento, Italy
- ⁹³ INFN, Trento Institute for Fundamental Physics and Applications, I-38123 Povo, Trento, Italy
- ⁹⁴ Cardiff University, Cardiff CF24 3AA, UK
- ⁹⁵ Montclair State University, Montclair, NJ 07043, USA
- ⁹⁶ National Astronomical Observatory of Japan, 2-21-1 Osawa, Mitaka, Tokyo 181-8588, Japan
- ⁹⁷ Canadian Institute for Theoretical Astrophysics, University of Toronto, Toronto, Ontario M5S 3H8, Canada
- ⁹⁸ MTA Eötvös University, “Lendület” Astrophysics Research Group, Budapest 1117, Hungary
- ⁹⁹ School of Mathematics, University of Edinburgh, Edinburgh EH9 3FD, UK
- ¹⁰⁰ University and Institute of Advanced Research, Gandhinagar, Gujarat 382007, India
- ¹⁰¹ IISER-TVM, CET Campus, Trivandrum Kerala 695016, India
- ¹⁰² University of Szeged, Dóm tér 9, Szeged 6720, Hungary
- ¹⁰³ Embry-Riddle Aeronautical University, Prescott, AZ 86301, USA
- ¹⁰⁴ Tata Institute of Fundamental Research, Mumbai 400005, India
- ¹⁰⁵ INAF, Osservatorio Astronomico di Capodimonte, I-80131, Napoli, Italy
- ¹⁰⁶ University of Michigan, Ann Arbor, MI 48109, USA
- ¹⁰⁷ Rochester Institute of Technology, Rochester, NY 14623, USA
- ¹⁰⁸ NCSA, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA
- ¹⁰⁹ University of Białystok, 15-424 Białystok, Poland
- ¹¹⁰ SUPA, University of Strathclyde, Glasgow G1 1XQ, UK
- ¹¹¹ University of Southampton, Southampton SO17 1BJ, UK
- ¹¹² University of Washington Bothell, 18115 Campus Way NE, Bothell, WA 98011, USA
- ¹¹³ Institute of Applied Physics, Nizhny Novgorod, 603950, Russia
- ¹¹⁴ Seoul National University, Seoul 151-742, Korea
- ¹¹⁵ Inje University Gimhae, 621-749 South Gyeongsang, Korea
- ¹¹⁶ National Institute for Mathematical Sciences, Daejeon 305-390, Korea
- ¹¹⁷ Pusan National University, Busan 609-735, Korea
- ¹¹⁸ NCBJ, 05-400 Świerk-Otwock, Poland
- ¹¹⁹ Institute of Mathematics, Polish Academy of Sciences, 00656 Warsaw, Poland
- ¹²⁰ Monash University, Victoria 3800, Australia
- ¹²¹ Hanyang University, Seoul 133-791, Korea
- ¹²² The Chinese University of Hong Kong, Shatin, NT, Hong Kong
- ¹²³ University of Alabama in Huntsville, Huntsville, AL 35899, USA
- ¹²⁴ ESPCI, CNRS, F-75005 Paris, France
- ¹²⁵ University of Minnesota, Minneapolis, MN 55455, USA
- ¹²⁶ Università di Camerino, Dipartimento di Fisica, I-62032 Camerino, Italy
- ¹²⁷ Southern University and A&M College, Baton Rouge, LA 70813, USA
- ¹²⁸ The University of Melbourne, Parkville, Victoria 3010, Australia
- ¹²⁹ College of William and Mary, Williamsburg, VA 23187, USA
- ¹³⁰ Instituto de Física Teórica, University Estadual Paulista/ICTP South American Institute for Fundamental Research, São Paulo SP 01140-070, Brazil
- ¹³¹ Whitman College, 345 Boyer Avenue, Walla Walla, WA 99362 USA
- ¹³² Université de Lyon, F-69361 Lyon, France
- ¹³³ Hobart and William Smith Colleges, Geneva, NY 14456, USA
- ¹³⁴ Janusz Gil Institute of Astronomy, University of Zielona Góra, 65-265 Zielona Góra, Poland
- ¹³⁵ King’s College London, University of London, London WC2R 2LS, UK
- ¹³⁶ IISER-Kolkata, Mohanpur, West Bengal 741252, India

- ¹³⁷ Indian Institute of Technology, Gandhinagar Ahmedabad Gujarat 382424, India
¹³⁸ Andrews University, Berrien Springs, MI 49104, USA
¹³⁹ Università di Siena, I-53100 Siena, Italy
¹⁴⁰ Trinity University, San Antonio, TX 78212, USA
¹⁴¹ University of Washington, Seattle, WA 98195, USA
¹⁴² Abilene Christian University, Abilene, TX 79699, USA
¹⁴³ Square Kilometer Array South Africa, The Park, Park Road, Pinelands, Cape Town 7405, South Africa
¹⁴⁴ Hartebeesthoek Radio Astronomy Observatory, PO Box 443, Krugersdorp, 1740, South Africa
¹⁴⁵ Laboratoire de Physique et Chimie de l'Environnement et de l'Espace, LPC2E, CNRS-Université d'Orléans, F-45071 Orléans, France
¹⁴⁶ Station de Radioastronomie de Nançay, Observatoire de Paris, CNRS/INSU, F-18330 Nançay, France
¹⁴⁷ INAF—Osservatorio Astronomico di Cagliari, via della Scienza 5, 09047 Selargius, Italy
¹⁴⁸ Max-Planck-Institut für Radioastronomie MPIfR, Auf dem Hügel 69, D-53121 Bonn, Germany
¹⁴⁹ CSIRO Astronomy and Space Science, Australia Telescope National Facility, Box 76 Epping, NSW, 1710, Australia
¹⁵⁰ Jodrell Bank Centre for Astrophysics, School of Physics and Astronomy, University of Manchester, Manchester M13 9PL, UK
¹⁵¹ CSIRO Astronomy and Space Science, Australia Telescope National Facility, Box 76 Epping, NSW, 1710, Australia
¹⁵² International Centre for Radio Astronomy Research, Curtin University, Bentley, WA 6102, Australia

Received 2017 November 13; published 2017 December 13

There is an error in Equation (4) of the original paper, which should instead be

$$Q_{22} = h_0 \left(\frac{c^4 d}{16\pi^2 G f_{\text{rot}}^2} \right) \sqrt{\frac{15}{8\pi}}. \quad (1)$$

This makes it consistent with Equation (3) of Aasi et al. (2014), which was actually used when calculating the value of the Q_{22} upper limits from the h_0 upper limits for the results of this paper.

References

Aasi, J., Abadie, J., Abbott, B. P., et al. 2014, [ApJ](#), **785**, 119

¹⁵³ Deceased, March 2016.